
BOYD COUNTY

(Boyd County Water Service Area Map)

- Estimated 1999 population of 48,000--95% on public water
- Estimated 2020 population of 43,400--98% on public water
- 450 miles of water lines, with plans for 17 additional miles
- Estimated funding needs for public water 2000-2005: \$335,000
- Estimated funding needs for public water 2006-2020: \$1,350,000

Boyd County had an estimated population of 48,022 (20,200 households) in 1999 with a projected population of 43,412 (19,721 households) in 2020. Public water is provided to 20,300 customers, or about 93 percent of the county's residents. In areas of the county not served by public water the households rely on private domestic wells. About 110 households will be added to public water service through new line extensions in 2000-2020.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
BOYD								-
Ashland				300				300
Cannonsburg								-
Big Sandy/Lawrence								-
Big Sandy W/D								-
Overland (private)	1	8	35					35
Total	1	8	35	300				335

Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
BOYD								-
Ashland				200				200
Cannonsburg	3	30	150					150
Big Sandy/Lawrence	2	15	100					100
Big Sandy W/D	11	58	600				300	900
Overland (private)								-
Total	16	103	850	200			300	1,350

PUBLIC WATER SYSTEMS

The residents of Boyd County are presently provided water by 4 providers: 1 municipal--the City of Ashland, Department of Utilities; and 2 water districts--the Big Sandy Water District, Cannonsburg Water District; and 1 private system Overland Development, Inc.

WATER SERVICE AREAS

BOYD COUNTY

Kentucky

Prepared By:
Water Resource Development Commission

Department for Local Government
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601-8204
502-573-2382 -- 502-573-2939 fax
<http://dlgnt1.state.ky.us/wrdc/>

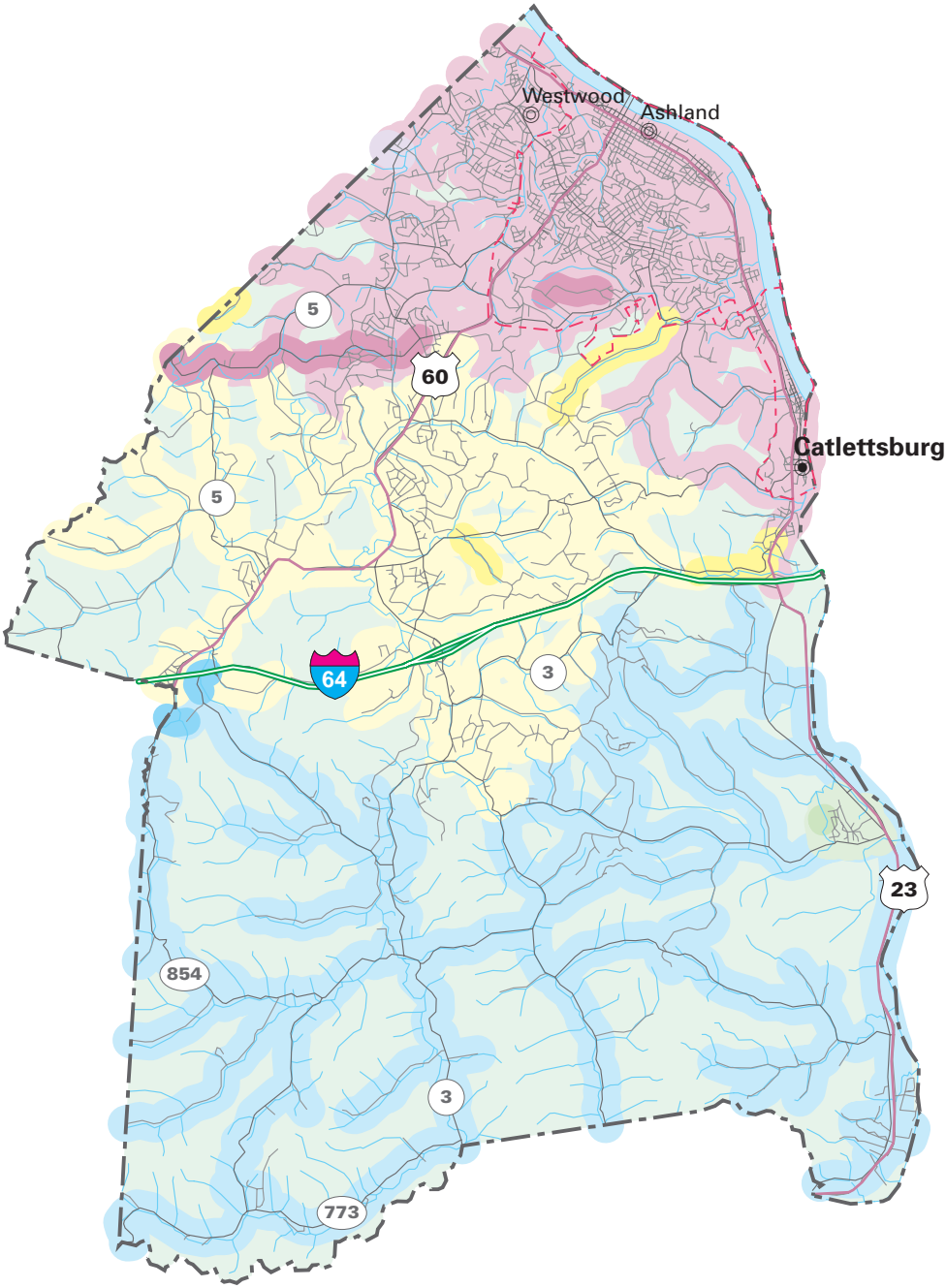
Bob Arnold, Chairman
Lawrence Wetherby, Executive Director

Final GIS & Cartographic Operations By:
Kent Anness & Kim Prough

Data Collection & GIS Input By:
Kentucky Area Development Districts



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WATER SERVICE STATUS BY OWNER		
EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		OVERLAND DEVELOPMENT/LOCKWOOD ESTATES
		FLATWOODS WATER COMPANY
		CANNONSBURG WATER DISTRICT
		BIG SANDY WATER DISTRICT
		ASHLAND WATER WORKS



ASHLAND WATER WORKS

PWSID: 0100011
System Type: COMMUNITY
Owner Type: MUNICIPAL
Surface Source: RESERVOIR
Purchase Source:
Well Source:
Sells Water to: CANNONSBURG WATER DISTRICT
Treatment Plant Capacity (MGD): 12.00
Percent Daily Average Production: 80.00
Total Tank Storage Capacity (gallons): 1,000,000.00
Total Service Connections: 15,000.00
Number of Employees: 9.00
Treatment Operator Class: 3D
Distribution Operator Class: 4A
Customer Rate for 1,000 Gallons: Not available
O/M costs 1997: Not available
O/M costs per Service Connection: Not available
Net Revenue 1997: Not available
Total Water Produced 1997 (gallons): Not available
Water Sold 1997 (gallons): Not available
Unaccounted-for Water 1997 (%): Not available

Ashland supplies water to the water districts of Cannonsburg, Flatwoods, and Russell. Flatwoods and Russell are located in Greenup County, Kentucky. Ashland gets its water from the Ohio River, and produces an average of 9,000,000 gallons per day with a production capacity of 12,000,000 gallons per day. The water utility has, in time, constructed nine storage tanks with storage capacity of 9,900,000 gallons. Also, of the nine-fulltime employees, eight are certified water treatment operators.

Most of Ashland Department of Utilities' water customers are located within the City of Ashland while the remaining customers are located in the county. In all, the Ashland system provides water to a population of 50,000 for a total of 15,000 connections. 14,795 connections are residential, 200 commercial, and 5 industrial. Most of the city has water lines; however, in the service area of the county there remain some areas that do not have access to water lines. These households fill their water needs by wells or hauled water. In areas where residents must resort to hauled water instead of wells, it is usually because of significant environmental obstacles such as sulfur or salt contamination.

Future extensions of the Ashland system will be for the most part limited to small line extension projects. The only major projects will likely involve the development of the

industrial parkway industrial sites and the upgrading of the water treatment plant. Specifically, the water treatment plant upgrade will include in the short term (0 to 5 years) a seven million-dollar phase and in the long term (6 to 20 years) a twenty million-dollar phase. Street improvements will include in the 0 to 5-year range a one-mile project on Naples Drive while in the 6 to 20 year range a six-mile project is planned for Lowman Drive.

BIG SANDY WATER DISTRICT

PWSID: 0100944
System Type: COMMUNITY
Owner Type: WATER DISTRICT
Surface Source:
Purchase Source: BIG SANDY WATER DISTRICT
Well Source:
Sells Water to: BIG SANDY WATER DISTRICT
Treatment Plant Capacity (MGD): 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons): 750,000.00
Total Service Connections: 2,334.00
Number of Employees: 10.00
Treatment Operator Class: 2D
Distribution Operator Class:
Customer Rate for 1,000 Gallons: 6.61
O/M costs 1997: 646,296.00
O/M costs per Service Connection: 276.90
Net Revenue 1997: 50,052.00
Total Water Produced 1997 (gallons): 0.00
Water Sold 1997 (gallons): 151,659,800.00
Unaccounted-for Water 1997 (%): 20.36

The Big Sandy Water District not only supplies rural Boyd County but also some rural parts of Lawrence and Carter Counties. They serve 1,345 customers in Boyd, 519 customers in Carter and 470 customers in Lawrence.

Big Sandy purchases their water from Kenova and Louisa. Big Sandy has no water treatment facility and on average purchases 562,000 gallons per day.

Big Sandy is projecting 65,654 feet of water line extensions with an estimated cost of \$171,851. The projects will affect an estimated 44 customers. Currently Big Sandy is not projecting any projects for 6-20 year.

CANNONSBURG WATER DISTRICT

PWSID: 0100064
System Type:..... COMMUNITY
Owner Type: WATER DISTRICT
Surface Source:
Purchase Source: CITY OF ASHLAND
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 0.00
Percent Daily Average Production:..... 0.00
Total Tank Storage Capacity (gallons): 30,000.00
Total Service Connections: 2,885.00
Number of Employees:..... 9.00
Treatment Operator Class: 2D
Distribution Operator Class:
Customer Rate for 1,000 Gallons:..... 4.82
O/M costs 1997:..... 991,625.00
O/M costs per Service Connection: 341.59
Net Revenue 1997: 31,673.00
Total Water Produced 1997 (gallons):..... 0.00
Water Sold 1997 (gallons):..... 296,051,000.00
Unaccounted-for Water 1997 (%): 9.39

Cannonsburg Water not only supplies rural Boyd County but also some rural parts of Greenup County. They serve 2,885 customers in Boyd, 51 customers in Greenup.

Cannonsburg purchases their water from the City of Ashland. Cannonsburg has no water treatment facility and on average purchases 1,044,630 gallons per day. 351.

Cannonsburg is projecting approximately 10 miles of water line extensions with an estimated cost of \$200,000. The projects will affect an estimated 98 customers. Currently Cannonsburg is not projecting any projects for 6-20 year.

OVERLAND DEVELOPMENT/LOCKWOOD ESTATES

PWSID: 0100004
System Type:..... COMMUNITY
Owner Type: PRIVATE
Surface Source:
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 0.00
Percent Daily Average Production:..... 0.00
Total Tank Storage Capacity (gallons): 27,500.00
Total Service Connections: 100.00
Number of Employees:..... 1.00
Treatment Operator Class: 1D
Distribution Operator Class:

Customer Rate for 1,000 Gallons:.....	5.74
O/M costs 1997:.....	30,261.97
O/M costs per Service Connection:	308.80
Net Revenue 1997:.....	620.00
Total Water Produced 1997 (gallons):.....	0.00
Water Sold 1997 (gallons):.....	5,657,000.00
Unaccounted-for Water 1997 (%):	7.90

Overland Development supplies water to 100 homes (260 people) in the Lockwood Estates (subdivision) area in the southern part of the county along the Big Sandy River. Overland gets its water from the Big Sandy Water District who in turn gets its water to supply this portion of Boyd County from the water plant across the Big Sandy River in Kenova, West Virginia. In case of emergency the system has five backup wells. Overland, moreover, has no water treatment facility and on average, purchases 18,000 gallons per day with no contractual agreement as to the limit of how much water it can buy.

Now disconnected, the system at one time used two tanks: 1 at 11,500 gallons and 1 at 16,000 gallons. Furthermore, there is only one full time employee who is a certified water treatment and water distribution operator.

Overland Development came into being twenty or so years ago as a way to get water to the residents of Lockwood Estates subdivision. Moreover, since the time of its inception, Overland's purpose remains the same: to service Lockwood's water needs. Because the Lockwood subdivision is for the most part completely built up, there is little expectation in the next twenty years for a need of major line extensions. The only project foreseen is a one-mile series of extensions to take place over the next five years. Currently, all the homes are on water lines.

PRIVATE DOMESTIC SYSTEMS

About 2,400 residents of Boyd County rely on private domestic wells for their water supply.

Most wells in valley bottoms are adequate for domestic supply however the volume of ground water available becomes progressively less on hillsides and ridges.

Quite a few high volume wells (>100gpm) are found along the Ohio River alluvium in northern Boyd county. The alluvium along the Big Sandy River also can provide adequate water for domestic use but often contains large amounts of iron.

In the southern and western half of the county, salt water may be found less than 100 feet below the level of the East Fork of the Little Sandy River valley bottom. Most of the water from drilled wells in the county other than the river alluvium is extremely hard and contains noticeable amounts of iron.

A few springs supply sufficient quantities of water for domestic use. Almost all springs yield less than 5 gpm.
